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ARISTOTLE'S THEORY OF MEMORY:

A SHORT COMMENTARY ON DE MEMORIA ET REMINISCENTIA

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Abstract

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In antiquity, memory was highly valued when there were no such sources like writing tools for transmitting and preserving the thoughts and texts like thousand lined epic poems. In the modern-day the scientists also became interested in the topic and established contemporary memory theories dealing with both psychology and physiology. Despite all controversial issues, Aristotle attempted to cover almost all aspects of memory with his contributions to the subject. This paper offers a brief commentary of Aristotle's theory of memory based on his treatise *De Memoria et Reminiscentia* (hereafter *De Memoria*) as being the first scientific work on memory. His theory of perception defined in *De Anima* and the faculty of *phantasia* are the essential components of the Aristotelian theory of memory.

Foreword

Many people at Representation and Reality Research Program (Works on Historical and Contemporary Perspectives on the Aristotelian Tradition) team at University of Gothenburg helped me to write my thesis. Here, I would like to thank to my supervisor, Filip Radovic.

My interest in *Parva Naturalia* began with a course at University of Gothenburg, for which I prepared a presentation about Aristotle's compilation of short treatises. During my preparation stage, I recognized that *Parva Naturalia* is still a blue ocean providing further discovery opportunities despite all the works that was done for centuries. After a year of preliminary studies and by the encouragement of my supervisor, I decided to proceed with a special focus on the *De Memoria,* one of the highly debated works of Aristotle. As per the requirements of our master's programme, I will be completing my thesis project in two phases. In this first part my aim is to analyse Aristotle's theory of memory limited with Greek Tradition. To be followed by the second part in which I will focus on the Latin Tradition, where I will be benefitting from the Arabic Tradition as well.

The first chapter of this paper is focused on how Aristotle treated memory. I will try to outline the topic based on the analysis of *De Memoria.* To support my ideas, I will also emphasize the importance of memory in the antiquity going back to the roots of mnemonic theories. I also find essential to compare Aristotle's position against modern-day theories to better understand how Aristotle laid the foundations for today's contemporary concept of memory and what has changed from his time to modern day. In the second section, I will try to further analyse some controversial points that I find important in *De Memoria*. This analysis basically covers the following three points: Objects of memory, the distinction between memory and recollection and the nature of memory-*phantasma*.

Is it possible to say that anything can be the object of memory? First, I will outline the time aspect of the object of memory that it is of the past, then I will try to understand the link with the faculties of the soul based on Aristotle's ideas in the *De Anima*. I will try to clarify the role of *phantasia* under this topic. Next problematic issue that needs further clarification is Aristotle's distinction between memory and recollection. Why did he find it necessary to distinguish these two faculties? I will try to solve this problem in three steps, (i) comparison of

the concepts (ii) the part of the soul they belong to (iii) the process of memory and recollection. One of the most controversial topics is the notion of the memory-*phantasma.* Here we face one of the most complicated issues of *De Memoria*, that is, how memory is related to an object which is no longer present. I will attempt to clarify this issue using Aristotle's own ideas especially the notion of *phantasma.* This subject lead us to problems with memory *viz.* false memory. I will try to analyse the analogies that Aristotle offers on this subject. Talking about problems linked to memory, it is also necessary to mention about "forgetting" as the opposite of memory. However, the notion of forgetting will not be discussed in this paper.

I hope my analysis will give insight to readers on why Aristotle though that memory and recollection were worthy topics of a distinct theoretical treatise, in addition to more obvious philosophical areas of investigation.

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Introduction

Dmitri Nikulin summarizes the significance of memory in the Ancient Greek world by emphasizing the necessity of memory for humans to survive and maintain their lives:

> The word *mnēmē* is widely used in Greek literature in the sense of individual "remembrance" or "memory" which we find in Theognis, as well as in the tragic poets Sophocles and Euripides. Among the early ("Pre-Socratic") thinkers or "physiologists" (those who wrote on nature or physics) there are few and occasional references to memory (*mnēmē* or *mnēmosynē*). Memory here is often associated with being, life, gift, and immortality, whereas oblivion is associated with non-being and death Eventually, Anaxagoras mentions memory—together with experience, wisdom, and art—as a capacity that allows for reproduction and use of agricultural skills, thus, in a sense, anticipating the notion of cultural memory. (Nikulin, 2015, pp. 35-36)

Historian Frances Yates[1] has shown memory skills as one of the liberal arts. As Yates has suggested; this art often resulted in shows displaying the recollected data, from the recall of long complicated word sequences of poems such as *The Odyssey,* which the speaker could easily repeat. Before the art of writing was in common use, men had to depend more than today upon their memories. Simonides of Ceos (ca. 556-468)[2] is a well-known historical character with his famous story where he was invited to a dinner party. He had to leave the dining hall for a short while. As he was outside the hall, the ceiling of the dining hall collapsed and buried everyone present, and the bodies could not be identified. Simonides, however, was able to tell the places where everyone had been located by recalling the guests' positions at the dinner table. This story is reproduced by the Latin rhetorical writer Cicero (106–43 BC) and also by Quintilian (ca. 35–90s BC), describing Simonides as the inventor of "The Art of Memory".

When it comes to memory, a lot of questions may be raised in order to shed light on this elusive phenomenon. What is memory? What are the objects of memory? How does memory work? How is memory related to other capacities of the soul? How do memory and recollection differ?

[1] Yates, 1999, pp. 27-50
[2] Simonides of Ceos is a famous lyric poet (ca.556-468), for further details see Nikulin, 2015, p.36.

Where is the memory located? To begin with a contemporary characterization, Oxford Dictionary of Philosophy describes memory as follows:

> The power of the mind to think of a past that no longer exists poses both empirical, psychological problems, and more abstract philosophical ones. The scientist wants to know how the brain stores in memories, and whether the mechanism is similar for different types of memory, such as short-term and long-term memories. The philosopher is particularly puzzled by the representative memory. That is if I summon up a memory of some event, how do I know to interpret it as representing the past, rather than being a pure exercise of imagination? Is there a specific feeling of pastness? But if so, might I not know to interpret that as a feeling of pastness?
>
> Indeed, is there always a present representation, or can memory be a form of direct acquaintance with the past? (Blackburn, 2016, p. 299)

The brief entry on memory above illuminates some philosophical puzzles that are linked with memory. Aristotle's attempt to explain memory in *De Memoria* is conceived as the first comprehensive scientific study of memory in the history of philosophy. In his time, memory skills were highly valued, and mnemonics was an important part of the education of elite class. Mnemonics is a term derived from the Greek Mnemosyne (the goddess of memory) which is being practiced since 500 BC. Mnemonics can be briefly explained as follows:

> the art of improving short-term recall that depends on strong visual images and meaningful associations (Turkington & Harris, 2001, p.157)

There are different types of mnemonic techniques which help one to remember things in a practical and a systematic way. These techniques are based on fact like places, rhymes, mental pictures, repetitions, acronyms, and lists.

De Memoria is a part of *Parva Naturalia,* following *De Sensu et Sensibili* (hereafter *De Sensu*) as the second treatise, has overlapping discussions with *De Anima* and especially on the views of *phantasia.* Being accepted as a milestone work, the discovery of *De Memoria* attracted philosophers, thus memory became an interesting subject for them. Many philosophers in

Greek, Arabic and Latin Traditions worked on the subject and various commentaries on *De Memoria* has been written especially by the western Latin philosophers.

In *De Memoria*, Aristotle puts his ideas on the table right away. He immediately starts inquiring with the questions: What is memory? Why there is memory? Where exactly the memory is located in the soul. He gives answers to the aforementioned questions by discussing the objects of memory, the place of memory within the capacities of the soul and the distinction between memory and recollection. Like other scholars, I find this distinction as an interesting point to be further discussed, thus I dedicate a sub-title to analyse how Aristotle distinguishes these two parameters later in this study.

In the first chapter of *De Memoria,* Aristotle tells us how memory is related to *phantasia* and how *phantasmata,* that is, a kind of sensory replication is involved in this process. In his account, Aristotle suggests that memory involves an awareness of a *phantasma*. Based on this, he tells us that memory belongs to primary faculty of perception, and to thinking as a second step. Chapter 1 of the treatise also tells us about the object of memory. On the basis of capacities defined in *De Anima,* Aristotle first identifies remembering related to its object. He locates memory in the sensitive part of the soul and links it in between two central activities of the sensitive faculty namely *phantasia* and the common sense. Chapter 2 is based on Aristotle's discussion of memory as described in the first chapter and remembering. In this chapter, Aristotle not only explains what recollection is, but he also distinguishes memory and remembering from sense perception, which helps us to see how memory is different from other forms of cognition. In brief, *De Memoria* deals with mnemonic capacities in humans and some animals, namely "memory" and "recollection". Memory is the capacity for retaining a trace of perceptual experiences by means of a *phantasma* that derives from the past, whereas *recollection* can be described as the activity of retrieving the knowledge of a thing stored in the memory trace after some time has passed. Being part of *Parva Naturalia, De Memoria* seeks for the affections both common to body and soul. Thus, memory can either be a study of psychology and physics. However, the *De Memoria* has been studied in particular for its relevance in Aristotle's psychological theory in the last decades.

In this study, I have mainly consulted three influential works, but I mainly rely on (ii) and (iii):

(i) Sir David Ross's "*Parva Naturalia",* (1955)

(ii) Richard Sorabji's "*Aristotle on Memory"* (second edition) (2004) and

(iii) David Bloch's "*Aristotle on Memory and Recollection"* (2007)

Ross's and Bloch's editions do not only include the Greek text but also have extensive commentary section on the Greek text. On the other hand, Sorabji's book involves introductory essays, his English translation, and notes on his translation. Ross's edition is the first comprehensive edition of *Parva Naturalia.* Apart from the Greek text and commentary part, Ross provides an illuminating discussion of how Aristotle's treatises relate to each other. Sorabji published the first edition of his book in 1972, and the revised edition 32 years later with some extensions and amendments. His comprehensive introduction followed by three essays on memory, mnemonic techniques, and recollection comparing Aristotle's accounts of memory and recollection. The analysis that Sorabji provides is quite extensive but it has also turned out to be quite controversial according to later interpretations. When it comes to David Bloch, as the creator of the latest edition, he enjoys having an updated version as a synthesis based on his predecessors' works combining with his unique approach in a more sophisticated way. He offers a new English translation, Greek text with commentary on textual issues and essays on memory and recollection that cover the Greek, Arabic and Latin Traditions. His translation and supporting essays give more relevant information for scholars to understand Aristotle's stance.

In addition to the sources listed in the bibliography, I have considered alternative translations. However, in the light of the above-mentioned issues, I used the texts in David Bloch's edition except for the *De Anima* translated by Christopher Shields.

Aristotle's Theory of Memory

Place of *De Memoria* in *Corpus Aristotelicum*

The *De Memoria* is a part of *Parva Naturalia* - a series of short treatises by Aristotle, which deals with fundamental functions that are common to both soul and body. The title *Parva Naturalia,* was first used by Aegidius Romanus (Gilles de Rome), towards the end of the thirteenth century.[3]

Aristotle emphasized the importance of memory at the beginning of his *Metaphysics*. The passage contains some important points about animal intelligence. The senses are innate and distinguishes differences among things, where those provide a base for science. The opening line indicates the importance of memory for animals and human intelligence.

> All men naturally desire knowledge. An indication of this is our esteem for the senses; apart from their use we esteem them for their own sake and most of all the sense of sight. Not only with a view to action, but even when no action is contemplated, we prefer sight, generally speaking, to all the other senses. The reason of this is that of all the senses sight best helps us to know things and reveals many distinctions. Now animals are by nature born with the power of sensation, and from this some acquire the faculty of memory, whereas others do not. Accordingly, the former is more intelligent and capable of learning than those which cannot remember. Such as cannot hear sounds (as the bee, and any other similar type of creature), are intelligent but cannot learn; those only are capable of learning which possess this sense in addition to the faculty of memory. Thus, the other animals live by impressions and, memories, and have but a small share of experience; but the human race lives also by art and reasoning.[4] (*Metaphysics,* 980a22-980b29, Trans. Hugh Tredennick, 1933, p.3)

[3] Ross, 1955, pp. 1-37

[4] Πάντες ἄνθρωποι τοῦ εἰδέναι ὀρέγονται φύσει. σημεῖον δ' ἡ τῶν αἰσθήσεων ἀγάπησις· καὶ γὰρ χωρὶς τῆς χρείας ἀγαπῶνται δι' αὐτάς, καὶ μάλιστα τῶν ἄλλων ἡ διὰ τῶν ὀμμάτων. οὐ γὰρ μόνον ἵνα πράττωμεν ἀλλὰ καὶ μηθὲν μέλλοντες πράττειν τὸ ὁρᾶν αἱρούμεθα ἀντὶ πάντων ὡς εἰπεῖν τῶν ἄλλων. αἴτιον δ' ὅτι μάλιστα ποιεῖ γνωρίζειν τι ἡμᾶς αὕτη τῶν αἰσθήσεων, καὶ πολλὰς δηλοῖ διαφοράς. Φύσει μὲν οὖν αἴσθησιν ἔχοντα γίγνεται τὰ ζῷα, ἐκ δὲ ταύτης[1] τοῖς μὲν αὐτῶν οὐκ ἐγγίγνεται μνήμη τοῖς δ' ἐγγίγνεται. καὶ διὰ τοῦτο ταῦτα φρονι- μώτερα καὶ μαθητικώτερα τῶν μὴ δυναμένων μνημονεύειν ἐστί, φρόνιμα μὲν ἄνευ τοῦ μανθάνειν ὅσα μὴ δύναται τῶν ψόφων ἀκούειν, οἷον μέλιττα, καὶ εἴ τι τοιοῦτον ἄλλο γένος ζῴων ἔστι· μανθάνει δ' ὅσα πρὸς τῇ μνήμῃ καὶ ταύτην ἔχει τὴν αἴσθη- σιν. Τὰ μὲν οὖν ἄλλα ταῖς φαντασίαις ζῇ καὶ ταῖς μνήμαις, ἐμπειρίας δὲ μετέχει μικρόν· τὸ δὲ τῶν ἀνθρώπων γένος καὶ τέχνῃ καὶ λογισμοῖς.

Chapter 1 of *De Memoria* tells us about its place in Aristotle's philosophy, but especially within the *Parva Naturalia.* Memory is the second topic in *Parva Naturalia* following *De Sensu,* which develops theories with the account of sensation provided in *De Anima*. To better understand how Aristotle used the word "memory" in the rest of his works, David Bloch gives the most comprehensive analysis. He categorizes Aristotle's works in three groups: The Psychological Works, The Biological Works, The Logical and Metaphysical Writings. Bloch claims that Aristotle used memory related words in most of his works and he used these terms consistently, but *De Memoria* is the only work where Aristotle provides his comprehensive view on what memory is.[5] Considering the fact that memory is a subject discussed in Parva Naturalia which examines both the soul and the body, David Bloch claims that Aristotle did this on purpose because he wants to emphasize the material side of memory.[6]

Importance of Memory in Ancient Philosophy

Ancient philosophers identified the functions of the soul and among those, memory and recollection attracted both Aristotle's predecessors and his contemporaries. It is not surprising considering the culture of early Greek society, that culture and thoughts could only be preserved through memory and oral transmissions between consecutive generations i.e. epic poems of thousands of lines were presented orally to audiences by the performers, who were believed to be capable of remembering such amounts of information. Hesiod cites *Mnemosyne* (Titaness goddess of memory and remembrance) as the mother of the muses, making the memory a prominent source for the arts and learning. Both Homer and Hesiod begin their works by requesting the muses to speak and sing through them. Lacking instruments, especially the essential ones as papers and other tools to store or transmit the information, the ancient ages experienced the development and refinement of an art of memory.[7]Plato and Aristotle were the first to stress the importance of memory as a means of consolidating knowledge. However, Plato focused on knowledge of the ideal world recording empirical knowledge.

Memory and recollection were the necessary skills for performing rhetorical displays. Despite the use of word *mnēmē* (memory) before him, Plato is the first one to use the notion of memory as a highly relevant philosophical concept. His first contribution to philosophy was systematically use of the notion of *anamnēsis* (recollection) in his *Meno*. In addition, Plato

[5] See Bloch, 2007, pp. 122-127 for detailed analysis where he makes references to particular works of Aristotle.
[6] Bloch, 2007, pp. 56-57
[7] Nikulin, 2015, p.37

examines memory in the *Philebus* and *Theaetetus* and he discusses recollection in the *Meno* and the *Phaedo.*[8] Plato puts memory to a special use in his account of learning as a kind of *anamnēsis*, by way of revealing a previously acquired information through a question and answer method. In *Meno,* Socrates demonstrates this on an uneducated slave to pass his examination, thus helping him to solve and *recollect* the proof of the Pythagoras' Theorem[9] by his own efforts.[10] In his works, Plato challenged the problems of memory with his classical Socratic method of finding the truth of a thing through questioning. For Plato, memories are kept alive by practice.[11] In a similar way, Plato's comparison of memory to the reception of imprints in a "wax tablet" was also influential on his contemporaries as he has presented in his *Theaetetus.*[12] Socrates suggests that we have a sort of a wax-tablet where all kind of marks are carved and stored, similar to images of signet-rings. With this simile, Socrates suggests that our memory is a kind of wax tablet influenced by both sense perception and thought.[13]

When it comes to something such as a poem or a sentence to you use to help you remember a rule we are talking about the term "mnemonic". Mnemonic techniques became popular in Greek antiquity between 6th and 2nd centuries BC and memory became a division of rhetoric. *Rhetorica ad Herennium* was the earliest known work to discuss memory as part of rhetorics composed in the first century.[14] Memory is discussed in the Book III, where artificial and natural memory have been distinguished. It is obvious that the natural memory refers to an innate skill where one needs to create mental *phantasma* for words or concepts and places them in mental locations for artificial memory.

[8] It is important to note that these works were not written as special treatises on *memory* and recollection but rather reflected many other concerns of Plato.
[9] One of the best-known mathematical formulas is Pythagoras' Theorem, which provides us with the relationship between the sides in a right triangle. A right triangle consists of two legs and a hypotenuse. The two legs meet at a 90° angle and the hypotenuse is the longest side of the right triangle and is the side opposite the right angle. The Pythagorean Theorem tells us that the relationship in every right triangle is: "the square of the hypotenuse is equal to the sum of squares of the other two legs."
[10] Plato, *Meno* 82b9-84b1
[11] Nikulin, 2015, p.45
[12] Plato, *Theaetetus* 191c8 – e1. For Plato's thoughts on *memory,* see also his *Philebus* 34a2-c2, 39a1-d4
[13] Plato, *Theaetetus* 191c-e; 192a-194d
[14] The *Rhetoric to Herennius* is the extant Roman systematic rhetoric, composed in the first century, BC. Long thought to have Cicero's, it shares a common approach with Cicero's *De Inventione.* A derivative of Greek rhetorical theory, this treatise was broadly influential in Roman antiquity, throughout the middle ages, and particularly in Renaissance rhetorical theory. Cicero, Rhetorica ad Herrennium (with an English Translation by Harry Caplan, (Great Britain, Harvard University Press,1964). For further details see Yates (1999).

Aristotle's Theory of Memory in the *De Memoria*

It is essential to analyse *De Memoria* line by line to better understand Aristotle's approach to memory. Therefore, I hereby try to summarize the outline of this treatise before I start further discussions on the important issues of *De Memoria* that I find interesting.

In the beginning of *De Memoria* at 449b4, Aristotle makes two immediate clarifications that illuminate the aim of his investigation. First, he emphasizes that this work is all about memory and recollection. Then he explains how these two capacities will be examined.

> Concerning memory and remembering we must state what it is, the reason for its occurrence, and in which part of the soul this affection occurs, and that we must do the same with recollecting. [15] (*De Memoria* 449b4-6, Trans., Bloch, 2007)

As can be also seen from the above sentence and the Greek text in the respective footnote, the terms which Aristotle uses comprehensively in *De Memoria* are μνήμη, τὸ μνημονεύειν, and τὸ ἀναμιμνήσκεσθαι, respectively, memory, remembrance, and recollection.

Despite Aristotle's division of his book into two chapters, namely, "Chapter 1 for Memory" and "Chapter 2 for Recollection" devoted to each faculty, he gives more importance to memory. Even in Chapter 2, he makes a significant amount of references to memory. Aristotle starts his discussion with "the object of memory" as the first important topic of the book. He raises the issue that this is one of the obscure topics that people often make mistakes. I would like to summarize here with Sorabji's words as a comment in between the lines of his translation that the object of memory is of the past:

> This is the past, not the future or present, nor what is present as an object of perception or theorizing. But after perception or theorizing is over, one can remember, and in doing so, will remember the fact of having perceived or theorized. (Sorabji, 2017, p. 47)

As a rephrasing of Aristotle's words, the above quotation definitely agrees with the general understanding of other scholars. However, in the first essay of his book, Sorabji criticizes Aristotle's position with a different approach as he discusses the problem whether memory is

[15] Περὶ μνήμης καὶ τοῦ μνημονεύειν λεκτέον τί ἐστι, καὶ διὰ τίν᾽ αἰτίαν γίγνεται, καὶ τίνι τῶν τῆς ψυχῆς μορίων συμβαίνει τοῦτο τὸ πάθος καὶ τὸ ἀναμιμνήσκεσθαι·)

of the past. Sorabji claims that Aristotle's arguments are not sufficient to defend his view that the thing remembered belongs to the past. Sorabji proposes this claim is based on the facts (the past facts related to previous acts of hearing, seeing, learning and contemplating) which Aristotle offers as examples. Sorabji proposes the solution that the memory involves past cognition of a thing and the past cognition is normally of the thing remembered after a lapse of time. By accepting this, Sorabji emphasizes the importance of the act of cognition (in Aristotle's case it is perception) for memory rather than the cognized object. Indeed, the act of past cognition is important and necessary, however, I read Aristotle's lines in another way, that together with the past cognition he sees the past object as the main component of his theory.

Following his initial approach Aristotle makes a preliminary definition of memory:

> Memory then, is neither sensation nor conception, but a state of having one of these or an affection resulting from one of these, when some time elapses.[16] (449b24-24, Trans. Bloch, 2007, p.27)

With this preliminary definition, Aristotle raises the second important issue that some time should be elapsed as a condition for we call an affection to be deemed as memory. By this observation of Aristotle, we understand that memory can be only of the past since it is not possible to remember the future, which is subject to expectation and since it is not possible to remember the present, which is subject to sense perception. Thus, memory refers to the past and implies a reference to time, because one needs to be aware of the before and after in order to understand the past as past. This, in turn, leads us to some further questions. For instance:

- Is memory only limited with the past activity of the remembered object?
- How is it possible that memory is of the past?
- If remembering takes place in the present and the past is already gone, and the remembering object is absent; how can present cognition be of what is past?

Seeking the answers to such questions is somehow like finding a way of how to travel back in time.

[16] Ἔστι μὲν οὖν ἡ μνήμη οὔτε αἴσθησις οὔτε ὑπόληψις, ἀλλὰ τούτων τινὸς ἕξις ἢ πάθος, ὅταν γένηται χρόνος.

Following the discussion of the concept of time in relation to memory, Aristotle makes one of his interesting claims about animals. He maintains that memory also belongs to some animals not only to men, namely, to animals that possess opinion[17] or intelligence and perceive time, and more importantly, these animals remember by the same faculty by which they sense

> Therefore, all memory happens with time. Thus, only animals that sense time can remember, and they do their remembering using the same faculty, by which they sense.[18] (449b28-30, Bloch, 2007, p.27)

At 449b30, Aristotle refers to *De Anima* in his discussion about *phantasia* and reminds us that *phantasma* is necessary for thinking.[19] *Phantasia* is responsible for the presentation of a perceived object which is to be called as the memory of this object. This presentation of the object may either be or not be the exact presentation. Aristotle uses *phantasia* to explain the human mind's ability as an intermediate between perception and thought. The roles that Aristotle assigns *phantasia* in his analysis of memory are, dreaming, thought and voluntary motion in the *De Anima, Parva Naturalia* and elsewhere. Aristotle explains the nature of *phantasia* in *De Anima III.3* after defining the functions of the soul and extending his ideas on the basic perceptual functions at length in *De Anima II. Phantasia* is "that in virtue of which we say a *phantasma* arises in us" (428a1-2)[20] Aristotle establishes resemblances between perceiving and thinking and then he reaches the conclusion that these are the activities of different faculties. He also describes *phantasia* as a movement since it is an awareness of objects which are the same as those perceived in acts of awareness, *viz.* colours as seen, sounds as heard, etc. The central role of *phantasia* in our cognition is emphasized as a source of retained senses information.

Aristotle raises another problem about memory by asking what part of the soul that memory belongs to. Then we need to clarify the position of memory within the general structure of the mind or the soul. As Aristotle suggests in *De Anima III,* that the mind has faculties or capacities to perform various operations namely, as thinking, judgment, sense perception and *phantasia*. Each faculty is defined by its object and its role in cognition process. Aristotle does not

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[17] In De Memoria, Aristotle uses the Greek word δόξα for opinion.

[18] διὸ μετὰ χρόνου πᾶσα μνήμη. ὥσθ' ὅσα χρόνου αἰσθάνεται, ταῦτα μόνα τῶν ζῴων μνημονεύει, καὶ τούτῳ ᾧ αἰσθάνεται.

[19] To be consistent in terms of terminology, I prefer to use *phantasia* and *phantasma/phantasmata* instead of using a translated term imagination, image or picture and indicated them by writing in italics.

[20] Shields, 2016, p.56

explicitly indicate what part of the body he thinks the memory belongs to, probably he is referring to internal bodily parts namely the heart due to his cardiocentric approach. Considering Aristotle's preliminary definition, *memory* does not relate to only one faculty, but it has significant relation with *phantasia*. As being a capacity of producing *phantasmata*[21], *phantasia* is different from both sense perception and thinking.[22]

Aristotle claims both in *De Memoria* (449b31) and *De Anima* (431a14-17) that thinking is impossible without accompanying *phantasmata.* Thus, *phantasia* is a faculty which is closely related to thinking. This illuminates the claim that *phantasia* is located in between sense perception and thinking.[23] David Bloch[24] clarifies which faculty that memory belongs to with reference to Aristotle's concept of perception. Bloch points out that, out of three kinds of objects of perception (namely, proper sensibles, common sensibles and accidental sensibles) only common sensibles fits the Aristotle's idea of memory as time can only belong to these. Therefore, he concludes the memory is linked to the common sense.

Aristotle points out the problem of how it is possible to remember a thing which is not present. The affection is present, but the thing is not:

> Furthermore, when the affection has first been produced in that which is indivisible and ultimate, then this affection and the knowledge (if one ought to call the state of having or the affection by the name of "knowledge"—and actually there is nothing to prevent that we also accidentally remember some things of which we have knowledge) are already present in the person who suffered the experience; however, remembering does not essentially exist before some time has elapsed; for a person remembers now what he saw or experienced earlier; he does not remember now what he experienced now.[25] (451a26-32, Bloch, 2007, p.37)

[21] There are debates about if these *phantasmata* are pictorial or should they be taken as the results of the experience of *memory.* Actually, if pictorial it fits within Simonides's memory system based on places. For details see Sorabji, 2017, pp. ix-xvi, pp. 2-8, Annas, 1992, p. 305 and Bloch, 2007, pp. 64-70.
[22] Aristotle, *De Anima* 427b14-428a5
[23] Nikulin, 2015, pp. 62-63
[24] Bloch, 2007, p. 60
[25] ἔτι δ᾽ ὅτε τὸ πρῶτον ἐγγέγονε τῷ ἀτόμῳ καὶ ἐσχάτῳ, τὸ μὲν πάθος ἐνυπάρχει ἤδη τῷ παθόντι καὶ ἡ ἐπιστήμη, εἰ δεῖ καλεῖν ἐπιστήμην τὴν ἕξιν ἢ τὸ πάθος (οὐθὲν δὲ κωλύει κατὰ συμβεβηκὸς καὶ μνημονεύειν ἔνια ὧν ἐπιστάμεθα)· τὸ δὲ μνημονεύειν καθ᾽ αὑτὸ οὐχ ὑπάρχει πρὶν χρονισθῆναι· μνημονεύει γὰρ νῦν ὃ εἶδεν ἢ ἔπαθε πρότερον, οὐχ ὃ νῦν bἔπαθε, νῦν μνημονεύει.

Stephen Everson[26] clarifies this through the idea that memory involves the exercise of *phantasia;* it should thus involve the presentation of a *phantasma.* The *phantasma* subject to memory should experience a change and compares them with the "wax-tablet" simile of Plato, which takes on the imprint of a signet-ring.

As mentioned earlier, the second chapter of the *De Memoria* is devoted to recollection. Aristotle starts this chapter by explaining what recollection is not.

> For recollection is neither the recovery of memory, nor the original acquisition of it; for when one first learns or experiences something, he neither recovers any memory (since there had been no memory there before), nor does he acquire it for the first time; but when the state of having or the affection is produced in the person, then it is memory.[27] (415a20-24, Bloch, 2007, p.37)

He states at 451a20-25 that recollection is neither the recovery of memory nor the acquisition of it.[28] And he continues to distinguish recollection from relearning, that, recollection cannot be defined as the recovery of scientific knowledge. With a similar approach as he does in his other works, Aristotle defines what recollection is step by step in a systematic way. He tries to show that recollection is a systematic reasoning process, which positions recollection similar to a syllogism. Bloch defines this as an active search process as a kind of deduction which places recollection and memory in different categories. Moreover, Bloch emphasizes (unlike the other scholars), that recollection is a voluntary process and one should be conscious to recollect.[29] As for Aristotle, a syllogism can be explained as a way of obtaining knowledge to reach the truth of a thing; likewise, recollection is a method to reach the desired conclusion, "recollected thing". The key to the methodology of recollection lies at the beginning of recollection process: one needs to choose a starting point and moves to a successor (in this case Aristotle names this starting point as "a middle term"). Following this selection, one needs to follow an order to

[26] Stephen Everson puts it like this: "This is, of course, firmly in line with the claim in *De Anima III. 3* that the change which comes about as a result of perceptual activity will necessarily be similar to the perception (428b14). Aristotle has thus placed the explanation of memory within his general account of the operation of phantasia. The subject remembers something in virtue of his being aware of a phantasma." See Everson, 1997, Chapter 6

[27] οὔτε γὰρ μνήμης ἐστὶν ἀνάληψις ἡ ἀνάμνησις οὔτε λῆψις· ὅταν γὰρ τὸ πρῶτον ἢ μάθῃ ἢ πάθῃ, οὔτ᾽ ἀναλαμβάνει μνήμην οὐδεμίαν (οὐδεμία γὰρ προγέγονεν) οὔτ᾽ ἐξ ἀρχῆς λαμβάνει· ὅταν δὲ ἐγγένηται ἡ ἕξις καὶ τὸ πάθος, τότε ἡ μνήμη ἐστίν.

[28] Having compared the translation of this sentence between Barnes, Sorabji and Bloch: I find Bloch's translation of this sentence clearer with additional reference to "original acquisition of memory" unlike the other translations stating, "acquisition of memory".

[29] Bloch, 2007, pp. 72–73

reach the conclusion.[30] The recollection may not be successful if one proceeds in different direction than the right way to reach the recollected. Aristotle gives a basic example of series of letters in the alphabet and tries to explain his middle term strategy which helps his to illustrate this strategy easily in their minds. But when it comes to events, similar to memory, time is becoming an important aspect of recollection. As events lay on a time-table, if one wants to recollect a certain event, then he should also set a benchmark event as a starting point similar to the methodology Aristotle offered in the series of alphabet letters. When retrieving a past event, one can easily link this event with nearby events that chronologically follow on each other. For instance, in the case of a man who has been married for 50 years cannot directly recall his first dinner on their honeymoon; he may first recall his memories from their wedding ceremony and on the basis of these events access what happened during the honeymoon. After 453a10, Aristotle points out one of the differences between memory and recollection. Even if animals have memory, he claims that only humans can recollect. This claim is due to the "deductive" nature of the recollection process, which needs reasoning and intelligence as humans have.

One of the important topics to be discussed is the involvement of the body in the process of recollection. Sorabji points out this issue in his comments on 453a14:

> "Recollection involves the body. Evidence of its physiological character: some become upset when they fail to recollect, and succeed in recollecting after giving up, which needs to be explained by saying that they have set up motion in an organ, and once set up, the motion will not stop, until what is sought returns." (Sorabji, 2017, p. 59)

Aristotle makes inferences that the body plays important roles in cases of; old people, young people, short people etc. He claims that the unsuccessful results of recollection lie in the flow of body fluids. He has this idea that physiology has an effect on the memory.

Aristotle's Theory vs Modern Day Theories

In antiquity, philosophy was a rather broad umbrella term for any serious attempt to explain phenomena unlike today where we distinguish between philosophy and empirical sciences and sub-disciplines within sciences. However, Aristotle's approach to memory is broad and would include what we today consider to be philosophy and also psychology.

[30] Nikulin, 2015, p. 68

Having reviewed the primary and secondary sources, it seems Bloch is the only scholar who compared Aristotelian theory with modern-day theories. He initially distinguishes memory into three categories: (i) Recollective (episodic or personal) memory, (ii) Habit (or procedural) Memory and (iii) Propositional (or semantic) memory and claims that Aristotle's definition does not cover the whole categories.[31] The first fundamental difference between Aristotelian theory and modern-day theories comes from a scientific point of view. Despite Aristotle's cardiocentric approach modern day concepts accept memory as a capacity that depends on neural processes in the brain. Aristotle reference to *kinesis* (motion) when he talks about perception, of which some are sense-like *phantasma* derived from and similar to prior cognition, instead of neural systems in the brain, while others are motions proportionate to a passage of time. Another point that Bloch raises, is the multi-layered structure of memory in the modern concept, which is a process of input, storage and output. Bloch claims that this model is not applicable to the Aristotelian approach, where Aristotle merely emphasizes the output. It is obvious to me how Aristotle used "objects of memory" (in this case the input) and "perception" (the storage) in parallel with modern-day theories. In these respects, I find the Aristotelian approach similar to modern-day theories.

In the light of the above, one can say that Aristotle's account of memory provides a fundamental approach for modern-day theories, even though Aristotle's methodology is not wholly covering the full scope of today's scientific approach.

[31] Bloch indicated that the number of memory categories may be increased i.e. categorical memory. For further details see Bloch, 2007, p.128

A Set of Controversial Issues

Having summarized Aristotle's approach to memory and recollection, I would like to further discuss some important problems in Aristotle's account. I believe this will also this may also explain why Aristotle devoted his treatise on these two distinct but interrelated topics.

In this section, first I will try to clarify the objects of memory and how memory and recollection are distinguished. As a second step, I will try to clarify the *phantasma* of memory in relation to Aristotle's the problem of pastness and leaves us with the question "How it is possible to remember something not present?" He solves this puzzle by the *phantasia* of memory where I will go into the distinction between a *zōon* (a picture) and an *eikōn* (a likeness). Linked to this distinction, the last point I will discuss is the problem of people who failed to distinguish imagining and remembering, in the case of Antipheron of Oreus and other unstable men.[32]

Objects of Memory

At first sight, one may say anything can be deemed as the object of memory. However, having gone through the text, Aristotle makes it explicit that not every object is the object of memory. After 449b10 Aristotle makes it clear the objects of memory should carefully be distinguished from objects of other capacities of the soul i.e. perception and thought. This idea also fits with his previous ideas at *De Anima II.4* that in order to define a capacity of the soul, we must define the activity and the respective objects.[33] In the light of this, Aristotle defines the activity of memory as remembering and tries to identify the objects of memory in line with his methodology which he introduced in his *De Anima*. As mentioned in the previous section, Aristotle gives importance to define the objects of memory. And at 449b10 he points out that people often make mistakes about the objects of memory:

> Then first, we must examine what kind of objects of memory there are; for this point is often the cause of mistakes.[34] (449b10, Bloch, 2007, p.25)

[32] In most of the English versions of *De Memoria* the Greek Word ἐξισταμένοις is translated as "madmen or deranged men". However David Bloch translates this word as "unstable men" which fits well with the sense of of being out of one's mind.
[33] For details see *De Anima* 415a14-22.
[34] Πρῶτον μὲν οὖν ληπτέον ποῖά ἐστι τὰ μνημονευτά· πολλάκις γὰρ ἐξαπατᾷ τοῦτο.

He proceeds that this object cannot be of the present or the future. If we consider a present thing then the respective faculty should be sense-perception, likewise if you talk about a future thing then we need to discuss expectation. But when it comes to remembering, this should be linked to the past, therefore, the object of memory should be of the past.

At 450a22-25 Aristotle makes the distinction between the type of objects of memory:

> As regards the question to which part of the soul memory belongs, it is, then, clear that it belongs to the same part as imagination; and those things that are essentially the objects of memory are also such of which there is imagination, while those that are accidentally objects of memory are those that do not occur without imagination.[35] (450a22-25, Bloch, 2007, p.29)

In the below quotation Aristotle compares abstract thought to *phantasma*. Aristotle uses the triangle analogy to show that one uses *phantasma* in thinking. The one who is thinking does not consider the *phantasma* having a certain quantity and abstracts from particulars. The *phantasma* having determinate features supports the abstract notion with the representation of a triangle. Here the abstract notion does not have any determinate features and requires the presence of a *phantasma*.

> Now, since we have already spoken about imagination in our discussions On the Soul, and since it is not possible to think without an image— for the same affection that occurs in drawing a diagram also occurs in thinking: for when drawing a diagram we make no use of the fact that the quantity of the triangle drawn is determinate, but still we draw it as having a determinate quantity; and similarly a person who thinks, even if he does not think about a quantity, he posits a quantity before his eyes, but does not think about it as a quantity; and if the object by nature has quantity, but an indeterminate quantity, he posits a determinate quantity, but thinks about it as quantity only—Now, the reason why it is impossible to think anything without continuity, and impossible to think about things that are timeless without time, belongs to another discussion.[36] (449b30-450a9, Bloch, 2007, pp.27-29)

[35] Τίνος μὲν οὖν τῶν τῆς ψυχῆς ἐστὶν ἡ μνήμη, φανερόν, ὅτι οὗπερ καὶ ἡ φαντασία· καὶ ἔστι μνημονευτὰ καθ᾽ αὑτὰ μὲν ὅσα ἐστὶ φανταστά, κατὰ συμβεβηκὸς δὲ ὅσα μὴ ἄνευ φαντασίας.
[36] Ἐπεὶ δὲ περὶ φαντασίας εἴρηται πρότερον ἐν τοῖς περὶ ψυχῆς, καὶ νοεῖν οὐκ ἔστιν ἄνευ φαντάσματος· ασυμβαίνει γὰρ τὸ αὐτὸ πάθος ἐν τῷ νοεῖν ὅπερ καὶ ἐν τῷ διαγράφειν· ἐκεῖ τε γὰρ οὐθὲν προσχρώμενοι τῷ τὸ ποσὸν ὡρισμένον

With reference to *De Anima II.6* above distinction seems to be between the proper the incidental objects of memory which leads us to a general distinction between particulars and universals.

Sorabji thinks that the mistake attributed to the people is not the object itself, but the mistake is about the object of the activity which in this case it is remembering.[37] Bloch examines the problem and he suggests that the object of memory is an important feature to understand Aristotle's approach. Bloch suggests that we must understand what Aristotle aims at, that is, we need to clarify the functions and characteristics of the object of memory.[38] Objects of memory can be defined as sensible objects which are the objects of *phantasia* or being intelligible as Aristotle shows us in the case of triangles. Hence, in principle, one can say that any perceivable object can be accepted as the object of memory.

The Distinction Between Memory and Recollection

With his immediate suggestion at the beginning of the De Memoria, Aristotle provides his opinion that memory and recollection are different as per the slowness and quickness of a mind:

> for the people who are good at remembering are not the same as the ones who are good at recollecting: most often slow-witted people are better at remembering, while the quick-witted and those who learn easily are better at recollecting.[39] (449b6-8, Bloch, 2007, p.25)

and as stated at 453a31-b7, that memory and recollection also differ on the bodily constitution:

> Now also those who have larger upper parts, that is, dwarfish people, have weaker memories than people for whom it is the other way around, because the former have a heavy load on their faculty of sense, and because their movements are from the beginning not capable of staying but become dispersed, and because they cannot easily follow a straight course in recollecting. The very young and the very old, on the other hand, have weak memories because of the movement (the latter being in decay, the former in much

εἶναι τὸ τριγώνου, ὅμως γράφομεν ὡρισμένον κατὰ τὸ ποσόν· καὶ ὁ νοῶν ὡσαύτως, κἂν μὴ ποσὸν νοῇ, τίθεται πρὸ ὀμμάτων ποσόν, νοεῖ δ᾽ οὐχ ᾗ ποσόν. ἂν δ᾽ ἡ φύσις ᾗ τῶν ποσῶν, ἀόριστον δέ, τίθεται μὲν ποσὸν ὡρισμένον, νοεῖ δ᾽ ᾗ ποσὸν μόνον. διὰ τίνα μὲν οὖν αἰτίαν οὐκ ἐνδέχεται νοεῖν οὐδὲν ἄνευ τοῦ συνεχοῦς, οὐδ᾽ ἄνευ χρόνου τὰ μὴ ἐν χρόνῳ ὄντα, ἄλλος λόγος.

[37] Sorabji, 2017, p. 65

[38] Bloch, 2007, p. 59

[39] οὐ γὰρ οἱ αὐτοί εἰσι μνημονικοὶ καὶ ἀναμνηστικοί, ἀλλ᾽ ὡς ἐπὶ τὸ πολὺ μνημονικώτεροι μὲν οἱ βραδεῖς, ἀναμνηστικώτεροι δὲ οἱ ταχεῖς καὶ εὐμαθεῖς.

growth); furthermore, little children are, until they have progressed in age, also dwarfish.[40] (453a31-b7, Bloch, 2007, p.51)

As discussed in the previous sections, Aristotle draws another distinction that recollection is a capacity attributable to humans only, in contrary to memory being attributable to some animals as well. This is because recollection is a syllogism based on certain premises leading for the truth of things.

> And remembering differs from recollecting not concerning time, but in the fact that a lot of other animals also partake in remembering, but so to speak none of the known animals partake in recollecting, except man.[41] (453a6-9, Bloch, 2007, p.49)

Aristotle makes a distinction between memory and recollection which is likely to be a response to Plato's view. He states that learning is not recollection and one can learn twice (451b6-10), in case one has forgotten what one had learned before. At (451b6-10), he also continues that one can have the memory of something without recollecting it, then learning is not recollection a recovery or acquisition of memory. Aristotle discusses that recollection is the recovery of the acts of sense perception and knowledge which have led to a state of memory.

I find David Bloch's distinction very systematic and clear. Bloch examines the differences under three topics:[42]

1. Conceptual Issues: He thinks Aristotle has more conceptual problems for memory than recollection, and recollection is more related to practical problems. Bloch makes the first distinction between these two as follows: we ask, "What is memory?" as for recollection the answer we seek is how we do it.
2. Sense and Intellect: With reference to *De Anima* II-III, Bloch raises the fundamental difference between memory and recollection. Memory belongs to the sensing soul where the latter relates to thinking soul. Some animals having the awareness of time can remember, but only man among all animals can recollect.

[40] Εἰσὶ δὲ καὶ οἱ τὰ ἄνω μείζω ἔχοντες καὶ οἱ νανώδεις βἀμνημονέστεροι τῶν ἐναντίων διὰ τὸ πολὺ βάρος ἔχειν ἐπὶ τῷ αἰσθητικῷ, καὶ μήτ᾽ ἐξ ἀρχῆς τὰς κινήσεις δύνασθαι ἐμμένειν ἀλλὰ διαλύεσθαι, μήτ᾽ ἐν τῷ ἀναμιμνήσκεσθαι ῥᾳδίως εὐθυπορεῖν. οἱ δὲ πάμπαν νέοι καὶ λίαν γέροντες ἀμνήμονες διὰ τὴν κίνησιν· οἱ μὲν γὰρ ἐν φθίσει, οἱ δ᾽ ἐν αὐξήσει πολλῇ εἰσίν· ἔτι δὲ τά γε παιδία καὶ νανώδη ἐστὶ μέχρι πόρρω τῆς ἡλικίας.

[41] διαφέρει δὲ τοῦ μνημονεύειν τὸ ἀναμιμνήσκεσθαι οὐ μόνον κατὰ τὸν χρόνον, ἀλλ᾽ ὅτι τοῦ μὲν μνημονεύειν καὶ τῶν ἄλλων ζῴων μετέχει πολλά, τοῦ δ᾽ ἀναμιμνήσκεσθαι οὐδὲν ὡς εἰπεῖν τῶν γνωριζομένων ζῴων, πλὴν ἄνθρωπος.

[42] Bloch, 2007, pp. 74-75

3. Passive State and Active Process: As memory and recollection are linked to the different parts of the soul, their requirements differ. Memory is a passive state which only requires a *phantasma,* where recollection is an active process of thought.

Generally speaking I agree with Bloch's analysis. However, I see one missing parameter, which is the effect of bodily constitution that Aristotle clearly displays in the text. According to my interpretation, Aristotle sees this body structures as an important point that have significant effect on memory and recollection.

What is a memory *phantasma*?

As discussed, memory makes use of a *phantasma* which is a product of *phantasia.* Here we face a complex issue about how we remember things. As per *De Memoria* (450a25-27) we only have an affection of a thing which is absent. In order to solve the problem of how a *phantasma* can involve an apprehension of the past. Aristotle suggests that this *phantasma* can either be considered in itself or the *phantasma* of the thing at the origin of the memory.

This leads us to an important question of Aristotle's theory at 450b18-19:

> How then, will he remember what is not there?[43] (450b18-19, Bloch, 2007, p.33)

The solution is explained in the coming lines and the key is the distinction between considering a *phantasma* as a *zōon* (a picture) and as an *eikōn* (a likeness). In the below passage Aristotle first identifies a problem of memory in terms of establishing references and tries to find the solution for this problem:[44]

> For just as the picture painted on a board is both a picture and a representation, and this being the same and one is both, although the being is not the same for both, and just as it is possible to contemplate it both as a picture and as a representation, so it must also be assumed that the image in us is both something in itself and of something else. Thus, qua something in itself, the affection is a contemplation and an image, and qua being of

[43] πῶς οὖν τὸ μὴ παρὸν μνημονεύει;
[44] Considering the use translations of Barnes, Sorabji and Bloch, I follow the wording of Stephen Everson and prefer to use Barnes's translation for *zōon* and *eikōn* as picture and likeness, respectively. In his translation, Sorabji translates *eikōn* as "copy" where Bloch prefers "representation. In the case of *zōon* Sorabji uses the word "figure" where the other two uses "picture". Moreover, Bloch makes a comment that *zōon* can also be interpreted as "animal" which he notes that this translation is also possible.

> something else it is something like a representation and a memory impression. Hence, when the movement of the affection actualises, it seems to occur as a thought or an image, if the soul senses it in so far that it is something in itself; but if the soul senses it in so far that it is of something else, and in the way you contemplate something in a picture as a representation, for instance, like a representation of Coriscus, even when you have not actually seen Coriscus, then the affection of this contemplation is different from the affection occurring when you contemplate as a picture in a painting: the latter arises in the soul only as a thought, while the other is a memory impression, since it is, like in the example of the painting, a representation.[45] (450b20 - 451a2, Bloch, 2007, p.33)

First, he makes a distinction between *eikōn* and the object in itself. He benefits from the analogy of a drawing to clarify the distinction between *eikōn* and the object itself. When one is considering a particular *phantasma,* it is possible to consider it as a thought about an object (in this case Coriscus), or as an *eikōn* – as a reminder of an object (in this case a likeness of Coriscus). Aristotle sees no problem at contemplating the drawing both as *zōon* and as *eikōn*, thus we can perceive our mental contents both as objects in themselves and the things that they represent. If we contemplate the *zōon* of Coriscus as an *eikōn* of Coriscus as a person, this *zōon* acts as the original perception of Coriscus which completely provided by him. Hence, such *phantasma* takes place of the absent object of memory. Based on his assumption that *phantasia* is necessary for thinking, Aristotle makes his assessment how *phantasia* relies on *zōon* or *eikōn.* For *zōon* we see the image (i.e. picture) of an object which clearly shows us what that thing is. But when it comes to *eikōn* we see the image (i.e. a photograph) of an object which we see as a depicted object.

The discussion involving the distinction between *zōon* or *eikōn* leads us to another interesting passage in *De Memoria* at 451a8-11 where Aristotle says that when we remember, we view an affection as "of something else," where this "something else" is a past object. He explains cases

[45] ἢ ἔστιν ὡς ἐνδέχεται καὶ συμβαίνει τοῦτο; οἷον γὰρ τὸ ἐν τῷ πίνακι γεγραμμένον καὶ ζῷόν ἐστι καὶ εἰκών, καὶ τὸ αὐτὸ καὶ ἓν τοῦτ᾽ ἐστὶν ἄμφω, τὸ μέντοι εἶναι οὐ ταὐτὸν ἀμφοῖν, καὶ ἔστι θεωρεῖν καὶ ὡς ζῷον καὶ ὡς εἰκόνα, οὕτω καὶ τὸ ἐν ἡμῖν φάντασμα δεῖ ὑπολαβεῖν καὶ αὐτό τι καθ᾽ αὑτὸ εἶναι θεώρημα καὶ ἄλλου φάντασμα. ᾗ μὲν οὖν καθ᾽ αὑτό, θεώρημα ἢ φάντασμά ἐστιν, ᾗ δ᾽ ἄλλου, οἷον εἰκὼν καὶ μνημόνευμα. ὥστε καὶ ὅταν ἐνεργῇ ἡ κίνησις αὐτοῦ, ἂν μέν, ᾗ καθ᾽ αὑτό ἐστι, ταύτῃ αἴσθηται ἡ ψυχὴ αὐτοῦ, οἷον νόημά τι ἢ φάντασμα φαίνεται ἐπελθεῖν· ἂν δ᾽ ᾗ ἄλλου, ὥσπερ ἐν τῇ γραφῇ ὡς εἰκόνα θεωρεῖ, καὶ μὴ ἑωρακὼς τὸν Κορίσκον ὡς Κορίσκου· ἐνταῦθά τε ἄλλο τὸ πάθος τῆς θεωρίας ταύτης καὶ αὅταν ὡς ζῷον γεγραμμένον θεωρῇ, ἔν τε τῇ ψυχῇ τὸ μὲν γίνεται ὥσπερ νόημα μόνον, τὸ δ᾽ ὡς ἐκεῖ ὅτι εἰκών, μνημόνευμα.

of false remembering as those where one falsely views an affection as of something else when it is not in fact of something else:

> But sometimes the opposite also occurs, as it did, for instance, to Antipheron of Oreus and to other unstable people; for they spoke of their images as having actually happened and as remembering them. And this situation occurs when one contemplates as a representation what is not actually a representation.[46] (451a8-11, Bloch, 2007, p.35)

By this passage, Aristotle introduces the problem of inadequate or false memory. Memory is linked with *phantasia,* that can be false due to the origin of the *memory* in this passage it is defined as *eikōn.*

As an example, he refers to a man called Antipheron of Oreus and people like him who "referred to their *phantasma* as things that happened, and they claimed to remember them. But this happens whenever someone views that which is not a *phantasma* as a *phantasma* (451a10-12). While it's clear from this example that we often miscognize objects as past, it is unclear why these mistakes occur and what the requirements are for success.

The critical point for this problem is that the memory deceives people as in the case of "Antipheron of Oreus or other mad people" who "used to speak of their images as things that occurred and as if they were remembering them".[47] The underlined part in the previous sentence is key to understand the problem. Aristotle refers to people who mistakenly think they remember when they, in fact, mistake a present *phantasma* for a memory-image. Thus, people may have a veridical or an illusory awareness of the past which we may call false memories. False memories which are the illusions of memory should be distinguished from the partial or complete loss of memory or malfunctioning memory.

Aristotle also gives recommendations at 541a12-14 of how to avoid bad memory by suggesting that memory should be trained by way of exercise or repetitions.

[46] τοῦτο δὲ συμβαίνει ὅταν θεωρῶν ὡς αὐτὸ μεταβάλλῃ καὶ θεωρῇ ὡς ἄλλου. γίνεται δὲ καὶ τοὐναντίον, οἷον συνέβη Ἀντιφέροντι τῷ Ὠρείτῃ καὶ ἄλλοις ἐξισταμένοις· τὰ γὰρ φαντάσματα ἔλεγον ὡς γενόμενα καὶ ὡς μνημονεύοντες. τοῦτο δὲ γίνεται ὅταν τις τὴν μὴ εἰκόνα ὡς εἰκόνα θεωρῇ.
[47] Sorabji, 2017, p. 52

Conclusion

One may wonder why Aristotle was interested in the phenomena of memory and more importantly why he wrote such a treatise. My readings lead me to two conclusions (i) The importance of memory in his time attracted him to the subject (ii) Considering his other works, his interest in the nature of the soul was the main motivation of him. Despite being linked to other works of Aristotle, *De Memoria* is significantly self-contained, and an independent treatise devoted to the challenging topics of memory and recollection. It is one of the shortest treatises and dense work of Aristotle. Unlike most of the philosophers, Aristotle's approach to memory is not epistemological as David Bloch suggests, Aristotle was more interested in the psychological side of memory. He tries to explain his theory in *De Memoria* with a general focus on solving psychological and conceptual problems in relation to the phenomenon of memory. [48]

After a series of questions and discussions that follow a distinct method of inquiry, Aristotle links memory to sense-perception and use of *phantasma* while recollection deals with intelligence as an active process. He discusses the distinction between memory and recollection step by step, first to define the memory and then to emphasize the importance of memory. Memory is non-propositional and is similar to a photographic memory. Recollection, on the other hand, is an active process, that is based a series of steps of a syllogism. Recollection is similar to narrative memory. Memory and recollection are therefore both opposed to and complement to each other in keeping and retrieving sense perception and knowledge.[49]

Although Aristotle accounted or how memory and recollection are different, David Bloch raises the very interesting point why Aristotle finds it necessary to connect these two topics in his treatise.[50] At this point, I think Aristotle aimed to define memory with the help of an affiliated phenomenon. Thus, as Bloch claims we can view *recollection* as a useful tool which can shed light on why Aristotle wrote about these two topics in *De Memoria.*

Then it comes to the question "Why there is *memory*?" I find one of David Bloch's statement as a straightforward response to this question:

[48] Bloch, 2007, pp. 56-57
[49] Nikulin, 1999, p. 69
[50] Bloch, 2007, pp. 76–77

> “If sense perception is important in order to be able to be in the world, *memory* is important to be able to be someone in the world”. (Bloch, 2007, p. 55)

I interpret Bloch’s quotation as an essential case for us so that we maintain our lives. If we do not have memory skills, this means that we need to re-experience all things happened in our background again and again. So, our life will not be sustainable without memory. Therefore, we need to have a memory and remember the necessary things to continue being someone in this world.

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